

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



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December 2011
CHPRC-2011-12, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

CHPRC formally transmitted to RL the 105KW, Cold Vacuum Drying Facility, and Canister Storage Building Safety Basis Documents in support of the knockout pot (KOP) processing operations, cold vacuum drying and interim storage. Due to an extension of the currently approved fuel and scrap processing operations, the current safety basis documents were revised to incorporate KOP material processing. RL review was initiated with approval expected by the end of January, 2012. A weekly Interface Meeting between RL and CHPRC personnel has been established and conducted to ensure significant RL comments are identified and acted upon “real time” by CHPRC personnel.

RC-STP-00567, *Sludge Treatment Project Knockout Pot Disposition Verification Container and Volume Measurement Tool Functional Calibration Verification for OCRWM Certification (OCRWM)* was approved in early December. This document, which was required by HNF-SD-SNF-RPT-007, *Application of the Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance Requirements to the Hanford Spent Nuclear Fuel Program*, records the results of the functional calibration and clearly demonstrates that the uncertainty of measuring volume of granular material in a verification container with a volume measurement tool is within the assumed uncertainty specified by the project in technical basis documentation.

The Volume Regulating Device that was fabricated by the subcontractor was functionally tested at the Maintenance and Storage Facility (MASF). The test validated the tool’s ability to positively regulate the amount of KOP Material that is introduced on the process table to a volume that was established during KPS Qualification Testing. This tool and the remaining hardware that is being modified in support of the KOP Subproject will be delivered to MASF in support of worker training, which begins in January, 2012.

Engineered Container Retrieval and Transport System (ECRTS) subcontractor AREVA formally submitted the 90% design for the K West modified annex.

The STP ECRTS project team is working with the CHPRC Prime Contracts organization to respond to questions received from the five prospective modified K West annex construction contractors. All contractors’ questions are required to be formally submitted by January 4, 2012, following which CHPRC staff and the AREVA design team will provide answers to the construction contractors by future addendum to the Request for Proposal on January 9, 2012.

Activities associated with installation of the three-hour fire wall on the north end of the K West Annex continued. The final concrete pour for the firewall was completed in early December.

Preparations for the second Technology Readiness Assessment (TRA) continue as planned.

PNNL issued a Rheology Report summarizing initial results from testing of sludge samples as part of the long-term storage study. These tests evaluated the effects of storage on the shear strength of the sludge. Further tests are ongoing with similar samples, which represent longer storage times, continuing to sit undisturbed in the hot cells.

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	4	13	<p>12/04/2011 - D&D worker from 190KW slipped on a plywood platform. The worker's feet slipped on ice that had formed on the platform. The worker noticed left wrist pain. (22535)</p> <p>12/08/2011 - RCT from 105KW slipped on slick surface and experienced slight pain in lower back. (22537)</p> <p>12/11/2011 - Teamster from 100K was exiting a government pickup truck at 209E, when the worker experienced pain in the left knee. (22541)</p> <p>12/13/2011 - Employee from 100K was performing ground scans when the worker stepped in a frozen tire rut causing him to twist causing a "pop" in the right knee. (22542)</p>
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

PRC-STP-TR-00514, *Test Report for STP ECRTS TRL-6 Integrated System Demonstration* was issued. This report documents completion of the TRL-6 Integrated Acceptance Testing, satisfying PI-12-02.2K.4, Completion of TRL-6 Integrated Acceptance Testing IAW test procedures.

The Engineered Container Retrieval and Transport System (ECRTS) Preliminary Design Report was issued on December 1, 2011.

MAJOR ISSUES

No major issues to report this month.

























RISK MANAGEMENT STATUS

Unassigned Risk

Risk Passed

New Risk

 Working - No Concerns  Increased Confidence
 Working - Concern  No Change
 Working - Critical  Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
STP-030: 100K KOP system operations	Refurbish IWTS, FRS, CLS to minimize operational downtime			Baseline includes refurbishment.
STP-007: Competing K Basin Priorities	Integrated, detailed working schedules/plan-of-the-week meetings			Training impacts due to workforce restructuring "bump and roll" requirements.
KBC-010: Unexpected TRU Debris or Other Waste	Develop characterization & blending/packaging strategy; establish alternate waste disposition pathways			No issues at this time.
KBC-011: DSA/FHA Limits Impact Waste Staging	Modify DSA/FHA to increase combustible loadings			Work in this area is proceeding without impact.
KBC-018: Discovery of Additional Sludge or SNF	Ensure SNF handling capabilities and WCH agreements are in-place			WCH has delayed shipments, and has requested extension of the window to make additional shipments.
STP-039: KOP Separations Process Qualification	Test the mechanical separations process in a relevant environment at MASF			Pretreatment test equipment modified and shipped to 100K for staging
STP-075A: ECRTS Technology Maturation Testing	Continue technology testing at MASF to demonstrate TRL-6 maturity by March 2012 TRA.			Full Integrated Testing (TRL-6) is complete.
STP-082: Changing in Classification of Annex from PC-2	Continue meetings with RL and stakeholders on hazards analysis			The risk was closed (temporarily) pending the definitization of scope in the contract.



PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Base	8.1	7.1	7.5	(1.0)	-12.5	(0.4)	-5.9

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance (-\$1.0M/-12.5%)

Negative variance primarily due to resources required to support commencement of MCO training were not available (due to bump and roll effect) and higher priority project work scope and absenteeism from the holidays. Additionally, ECRTS design is ahead of schedule CTD so experienced BCWS for BCWP completed in previous periods and Phase 2 Sitting Study did not start as planned as the procurement process has taken longer than planned.

CM Cost Performance (-\$0.4M/-5.9%)

Negative variance primarily due to the cost transfer of training hours as the result of scope transfers related to the implementation of PMB Rev. 3 BCR.

Contract-to-Date

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Base	268.3	268.9	269.8	0.7	0.2	(0.9)	-0.3	625.6	624.8	0.7

Numbers are rounded to the nearest \$0.1M

CTD Schedule Performance (+\$0.7M/+0.2%)

The combined 100K and STP variance is within reporting thresholds.

CTD Cost Performance (-\$0.9M/-0.3%)

The combined 100K and STP variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

Estimate at Completion (EAC)

The current EAC is slightly lower than the projects BAC.

FUNDS VS. SPEND FORECAST

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2012		Spend Variance
	Projected Funding	Spending Forecast	
Base	86.9	82.9	4.0

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

The Base funding distribution by PBS was revised based on Revision 3 of the Performance Measurement Baseline.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Baseline Change Requests

None currently identified.

MILESTONE STATUS

TPA milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The following table is a one year look ahead of key milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
DNFSB 120W	Complete Sludge Treatment	DNFSB	11/30/09			A pending Implementation Plan update will address this milestone.
M-016-171	Complete K Basin Sludge Treatment & Packaging Tech Eval Report	TPA	3/31/12			On Schedule.

SELF-PERFORMED WORK

The Section H.20 clause entitled, Self-Performed Work, is addressed in the Monthly Report Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.